Optimized design delivers the best choice for workstation builds

- New Intel® workstation-specific C216 chipsets
- Independent Software Vendor (ISV) certification
- Diverse CPU and memory support - wide coverage for different needs
- Dual server-class Intel® Gigabit LAN lowers CPU utilization and improves throughput quality
- Complete USB 3.0 Integration: total four ports on front and rear panels
- **Windows 8 Ready – Assured Compatibility**
- **Support Intel® Xeon Phi™ 3100 series (active fan SKU only) and NVIDIA Tesla K20C cards.**

Add to comparison list

Workstation essentials for your professional studio

The ASUS Workstation Series is the ideal foundation for a powerful PC. It delivers awesome power, dependable performance and unmatched multiple I/O scalability for the most demanding tasks and future upgrades. The ASUS

Workstation Series intelligently reduces operating noise and dissipates heat through advanced and environmentally-friendly methods to accommodate user needs. ASUS Workstation Series motherboards also bring you ultimate reliability and quality through our 24x24 initiative, which means 24-hour non-stop operation and a 24-month life cycle supply guarantee so you don´t need to change hardware so often. Instead, let the ASUS Workstation Series improve the quality of your work and life.

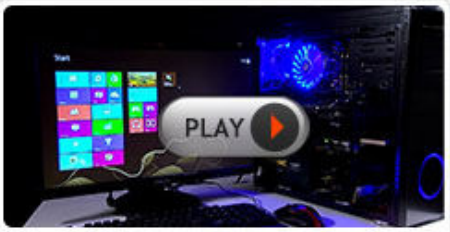
Windows 8 Exclusive Features

Fast Boot

Instant OS Login

ASUS has released new hardware and software designs to shorten system boot-up time to 2-seconds* for a smoother user experience that removes annoying delays under Windows 8, and even previous versions of Windows. Faster system boot and restart means Windows starts quicker and higher efficiency - No more waiting around.

Instant OS Login



Best Windows 8 Experience

ASUS Boot Setting

Multi-startup Options

Thanks to ASUS Windows 8 hardware optimization, ASUS Boot Setting provides better flexibility in customizing your PCs startup process. You can enter the BIOS directly with one click through a user-friendly interface, and quickly select your preferred system boot up method: either get to the OS in seconds or opt for regular boot up. Whatever your choice, settings are saved and persistent, with no need to choose every time you power on.

Multi-startup Options

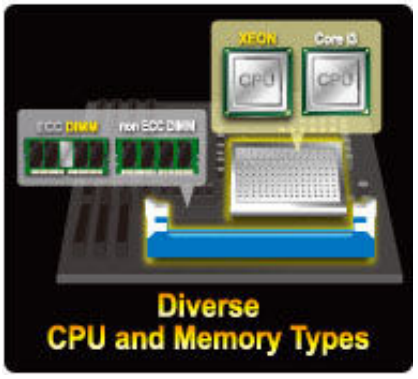
ASUS Workstation Exclusive Features

Ultimate Workstation Build

The P8C WS features Intel's Socket 1155 with the C216 chipset specially-designed for workstations. ISV application testing and certification with integrated graphics cores on E3-12x5 v2 processors are perfect for entry-level workstations and software such as Autodesk® AutoCAD 2013 and Inventor 2012. The P8C WS is your best choice for a DIY workstation build that rivals top-tier pre-built workstations.

Diverse CPU and Memory Types

Both Intel® E3-1200/12x5 v2 series server/workstation processors and 3rd generation Core™ i3 desktop processors are supported. Users can also choose DDR3 unbuffered non-ECC memory, widely available on the market, or more stable and reliable DDR3 unbuffered ECC memory. The P8C WS provides flexible CPU and memory options to meet diverse needs.



Built-in Dual Intel - Server-Class Gigabit LAN

For more reliable networking, the P8C WS features built-in dual Intel® server-class Gigabit LAN for lower CPU utilization and increased throughput. It achieves outstanding performance as well as better support for diverse operating systems. In addition to Microsoft Windows®, hardware LAN supports Linux, CenOS and Ubuntu. The onboard Intel® 82574L chipset features VMware certification for enhanced virtualization support.

Server-level Compatibility with RAID card and Lan card

The P8C WS provides complete compatibility with RAID and LAN cards.Users enjoy a wider selection of devices and

higher reliability. As a workstation motherboard that puts an emphasis on system integration, offering the benefit of greater confidence and convenience.

Server-level Compatibility

ASUS Exclusive Features

Network iControl

Real-time Network Bandwidth Control

Network iControl

With a single-click on/off button, the application currently in use has its data and network bandwidth prioritized over other programs. Moreover, you can prioritize your favorite software easily by configuring profiles through the intuitive user interface. Within the profile, programs can be pre-scheduled to run in a specific time period to avoid network congestion and long-waits on downloads. Auto PPPoE network connection provides a one-step setup for enhanced online convenience. Overall, it's an intuitive network bandwidth control center.

USB 3.0 Boost

Faster USB 3.0 Transmission with UASP

True UASP Support

ASUS USB 3.0 Boost technology supports UASP (USB Attached SCSI Protocol), the latest USB 3.0 standard. With USB 3.0 Boost technology, a USB device's transmission speed is significantly increased up to 170%, adding to an already impressive fast USB 3.0 transfer speed. ASUS software automatically accelerates data speeds for compatible USB 3.0 peripherals without the need for any user interaction.

UEFI BIOS (EZ Mode)

Flexible and easy BIOS interface

Easy & Flexible

The brand new ASUS EFI BIOS offers a user-friendly interface that goes beyond traditional keyboard-only BIOS controls to enable more flexible and convenient mouse input. Users can easily navigate the new EFI BIOS with the same smoothness as their operating system. The exclusive EZ Mode displays frequently-accessed setup info, while the Advanced Mode is for experienced performance enthusiasts that demand far more intricate system settings.

EPU

Energy efficiency all around

Tap into the world's first real-time PC power saving chip through a simple onboard switch or the AI Suite II utility. Get total system-wide energy optimization by automatically detecting current PC loadings and intelligently moderating power consumption. This also reduces fan noise and extends component longevity!

CPU, Chipset and Graphics features

Socket LGA1155 for Intel® 2nd/3rd Generation Core i3 and Xeon E3-1200/12x5 v2 Processors

The latest Intel® 2nd/3rd generation Core™ i3 and Xeon E3-1200/12x5 v2 series processors in the LGA1155 package are supported, with memory and PCI Express controllers integrated to enable 2-channel (4 DIMM) DDR3 memory and 20 PCI Express 2.0 lanes. This provides great graphics performance. Intel® 2nd/3rd generation Core™ i3 and Xeon® E3-1200/12x5 v2 series processors are among the most powerful and energy efficient CPUs in the world.

Intel® C216

The Intel® C216 Express is the latest single-chipset design, supporting the new socket LGA1155 Intel® Core™ i3 3rd generation processors and Intel® Xeon® E3-1200 v2 server processors. It improves performance by utilizing serial point-to-point links, allowing for increased bandwidth and stability. Additionally, the C216 comes with two SATA 6Gb/s and four SATA 3Gb/s ports for faster data retrieval, doubling the bandwidth of current bus systems. It also supports Intel's iGPU integrated graphics.

Intel® Smart Response Technology

SSD Speed with HDD Capacity

Intel® Smart Response Technology boosts overall system performance. It uses an installed fast SSD (min 18.6GB available capacity required) as a cache for frequently accessed data. Key benefits include reduced load and wait times, and lower power consumption through the elimination of unnecessary hard drive spin. This technology combines SSD performance with hard drive capacity, operating up to 6X faster than a hard drive-only system.

Intel® Smart Connect Technology

Auto Application Refresh. Less Waiting Time
Your computer can receive web updates with fresh content for selected applications, even when the system is in sleep mode. This means less time waiting for applications to update and sync with the cloud, leading to a more efficient computing experience.

Intel® Rapid Start Technology

Instant Awake your PC from Sleep Mode
Allows your computer to quickly resume from a low-power hibernate state in seconds. Saving your system memory to the designated SSD, it provides your computer a faster wake-up response time, while still keeping the energy use low.

Quad-GPU CrossFireX!

Flexible multi-GPU - your weapon of choice!
The P8B WS brings you AMD quad CrossFireX graphics, featuring the powerful Intel C216 platform to optimize PCI Express allocation in multiple GPU configurations. Expect a brand new gaming style like you've never experienced before!

Diverse coprocessors and GPU accelerators support

The P8C WS supports up to four PCI-E x16 slots for high expandability, compatible with versatile expansion cards, especially in supporting up-to-date Intel® Xeon Phi™ 3100 Coprocessor series (active fan SKU only) and NVIDIA Tesla K20C of GPU accelerators.

Future Transfer Technology

PCIe 3.0 Ready

PCI Express® 3.0 (PCIe 3.0) is the latest PCI Express bus standard with improved encoding schemes that provide twice the performance of current PCIe 2.0. Total bandwidth for a x16 link reaches a maximum of 32GB/s, double the 16GB/s of PCIe 2.0 (in x16 mode). As such, PCIe 3.0 provides users unprecedented data speeds, combined with the convenience and seamless transition offered by complete backward compatibility with PCIe 1.0 and PCIe 2.0 devices. PCIe 3.0 will become a must-have feature for users who wish to improve and optimize graphic performance, as well as have the latest technology available to them.

* PCIe 3.0 speed is supported by Intel® 3rd generation Core™ processors.

CPU

Intel® Socket 1155 for 3rd/2nd Generation Core™ i7/Core™ i5/Core™ i3 Processors
Intel® Socket 1155 for Intel® E3-1200/12x5 v2 processors
Supports Intel® 32 nm CPU
Supports Intel® 22 nm CPU
Supports Intel® Turbo Boost Technology 2.0

Chipset

Intel® C216

Memory

4 x DIMM, Max. 32GB, DDR3 1600/1333 MHz ECC, Non-ECC, Un-buffered Memory
Dual Channel Memory Architecture
Supports Intel® Extreme Memory Profile (XMP)
* Refer to www.asus.com or user manual for the Memory QVL (Qualified Vendors Lists).

Graphic

Integrated Graphics Processor *1
Multi-VGA output support : DVI ports
- Supports DVI with max. resolution 1920 x 1200 @ 60 Hz
Maximum shared memory of 1024 MB

Multi-GPU Support

Supports AMD Quad-GPU CrossFireX™ Technology

Expansion Slots

2 x PCIe 3.0/2.0 x16 (x16 or dual x8)
2 x PCIe 2.0 x16 (x4 mode)
1 x PCIe 2.0 x1
1 x PCI

Storage

Intel® C216 chipset :
2 x SATA 6Gb/s port(s), gray
4 x SATA 3Gb/s port(s), blue
Support Raid 0, 1, 5, 10
Supports Intel® Smart Response Technology, Intel® Rapid Start Technology, Intel® Smart Connect Technology *2

LAN

Intel® 82574L, 2 x Gigabit LAN Controller(s)
Support Teaming Technology

Audio

Realtek® ALC892 8-Channel High Definition Audio CODEC
- Supports : Jack-detection, Multi-streaming, Front Panel Jack-retasking
Audio Feature :
- Blu-ray audio layer Content Protection
- Optical S/PDIF out port(s) at back panel

IEEE 1394

VIA® 6308S controller
2 x IEEE 1394a port(s)

USB Ports

Intel® C216 chipset :
4 x USB 3.0 port(s) (2 at back panel, blue, 2 at mid-board)
Intel® C216 chipset :
10 x USB 2.0 port(s) (6 at back panel, black, 4 at mid-board)

Workstation Feature

4 x PCIe x16 slot(s)
G.P. Diagnosis Card bundled
Quick Gate: 2 x vertical USB 2.0 on board

Special Features

ASUS EPU :
- EPU
- EPU switch
ASUS Power Design :
- 8 +2 Phase Power Design
GPU Boost with switch
ASUS Exclusive Features :
- MemOK!
- AI Suite II

- Anti-Surge
- ASUS UEFI BIOS EZ Mode featuring friendly graphics user interface

ASUS Quiet Thermal Solution :

- Stylish Fanless Design Heat-sink solution
- ASUS Fan Xpert

ASUS EZ DIY :

- ASUS CrashFree BIOS 3
- ASUS EZ Flash

ASUS Q-Design :

- ASUS Q-Connector

Back I/O Ports

1 x PS/2 keyboard/mouse combo port(s)
1 x DVI-I
1 x IEEE 1394a
2 x LAN (RJ45) port(s)
2 x USB 3.0
6 x USB 2.0
1 x Coaxial S/PDIF out
1 x Optical S/PDIF out
6 x Audio jack(s)

Internal I/O Ports

1 x USB 3.0 connector(s) support(s) additional 2 USB 3.0 port(s) (19-pin)
1 x USB 2.0 connector(s) support(s) additional 2 USB 2.0 port(s)
2 x Vertical USB 2.0 port(s)
1 x TPM connector(s)
1 x COM port(s) connector(s)
1 x IEEE 1394a connector(s)
1 x CPU Fan connector(s)
3 x Chassis Fan connector(s)
1 x Power Fan connector(s)
1 x S/PDIF out header(s)
1 x 24-pin EATX Power connector(s)
1 x 8-pin ATX 12V Power connector(s)
1 x parallel port connector(s)
1 x Front panel connector(s) (1 x 20 -pin)
1 x Front panel audio connector(s) (AAFP)
1 x MemOK! button(s)

BIOS

64 Mb Flash ROM, EFI AMI BIOS, PnP, DMI2.0, WfM2.0, SM BIOS 2.6, ACPI 2.0a, Multi-language BIOS, ASUS EZ Flash Utility, ASUS CrashFree BIOS 3

Manageability

WfM 2.0, DMI 2.0, WOL by PME, WOR by PME, PXE

Operating System

Fedora 16
Windows® Server 2008 R2 Enterprise
Windows® Server 2008 Enterprise 32/64-bit
Windows® Server 2003 R2 Enterprise 32/64-bit
Windows® 8 32/64-bit
Windows® 7 32/64-bit
Windows® XP 32/64-bit
RedHat® Enterprise Linux WS 6.2 32/64-bit
Open SUSE 12.1
Ubuntu Desktop 12.04
*3

Form Factor

ATX Form Factor
12 inch x 9.6 inch (30.5 cm x 24.5 cm)

Note

*1: Only using processors which feature Intel HD Graphics,Intel integrated graphics could enable.
*2: Supports on Intel® Core™ processor family with Windows 7 operating systems.
*3: Linux OS only conduct installation test OK.